

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions, and listings, of claims in the Application.

Listing of Claims:

1. (Currently amended) A mobile services network comprising:
a mobile electronic device;
a management server;
an update package repository; and
a generator for generating an update package used in updating firmware in the mobile electronic device from a first version to a second version, the update package comprising encoded difference information and a shift region list that identifies at least one region of the first version of firmware and an associated offset, wherein the first version is modified to correspond with the shift region list in the update package, and the encoded difference information is generated to comprise the differences between the second version and the modified first version.

~~[[that when applied by shifting the at least one region within the first version of firmware before generation of the encoded difference information produces a modified first version in which the at least one region more closely aligns to a corresponding region of the second version of firmware.]]~~

2. (Cancelled)

3. (Original) The network according to claim 2 wherein the update packages are populated into the update package repository.

4. (Cancelled)

5. (Original) The network according to claim 1 wherein the management server and the update package repository are communicatively coupled.

6. (Previously presented) The network according to claim 1 wherein the generator and the update package repository are communicatively coupled.

7. (Previously presented) The network according to claim 1 wherein the generator is located at a location remote from the update package repository.

8. (Original) The network according to claim 1 wherein the mobile electronic device comprises:

- a non-volatile memory;
- a random access memory; and
- security services.

9. (Original) The network according to claim 8 wherein the non-volatile memory comprises:

- an update agent;
- a firmware and real-time operating system;
- a download agent; and
- a boot initialization.

10. (Original) The network according to claim 9 wherein the non-volatile memory further comprises an operating system layer.

11. (Original) The network according to claim 9 wherein the non-volatile memory further comprises an end-user-related data and content unit.

12. (Original) The network according to claim 9 wherein the mobile electronic device performs the following:

- downloading an update package from the update package repository;
- rebooting;
- executing the boot initialization;
- determining whether an update process is needed; and
- invoking the update agent.

13. (Original) The network according to claim 12 wherein the mobile electronic device determines the need for an update process based on status information.

14. (Original) The network according to claim 12 wherein the mobile electronic device invokes the update agent to execute the update process if it is determined an update process is needed.

15. (Currently amended) A method for generating an update package using a first version and a second version of firmware in a mobile services network, the method comprising:

creating a module map identifying one or more modules in the first version of firmware and corresponding modules in the second version of firmware, wherein each module comprises a region of firmware;

creating a shift region list that identifies at least one region of the first version of firmware and an associated address adjustment;

~~[[that when applied by shifting the at least one region within the first version of firmware before generation of encoded difference information produces a modified first version in which the at least one region more closely aligns to a corresponding region of the second version of firmware;]]~~

generating encoded difference information that comprises differences between the first version that is modified to correspond to the shift region list and the second version; and

generating an update package using the encoded difference information and the shift region list.

16. (Previously presented) The method according to claim 15 wherein the module map comprises module locations and sizes in the first version of firmware and the second version of firmware.

17. (Original) The method according to claim 15 wherein creating the shift region list comprises:

identifying shift points within each module of the firmware, wherein the shift points define shift regions;

creating a first shift region list;

modifying a first shift region list to include external shifts; and

creating a second shift region list.

18. (Original) The method according to claim 17 wherein the method further comprises consolidating adjacent shift regions having identical address adjustments.

19. (Previously presented) The method according to claim 17 wherein the first shift region list comprises:

shift regions corresponding to modules in the first version of firmware;

sizes of the shift regions; and

address adjustment values corresponding to the difference between a start location of a module in the first version of firmware and the start location of the same module in the second version of firmware.

20. (Previously presented) The method according to claim 19 wherein modifying the first shift region list comprises:

finding modules that changed size from the first version of firmware to the second version of firmware;

adjusting address-based instructions in the first version of firmware using the address adjustment value of the changed modules;

identifying areas where new content was inserted into a module;

defining the identified areas of new content as new shift regions;

deleting the changed modules from the first shift list; and

inserting the defined shift regions into the first shift list.

21. (Previously presented) The method according to claim 18 wherein adjacent shift regions are consolidated if modules remain unchanged in the from the second version.

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22. (Original) The method according to claim 18 wherein the second shift region list is the result of consolidating shift regions in the modified first shift region list.